

system, comprising the steps of: generating a command message including a command, a command descriptor, and one of a server route for directly associating a node with the command descriptor and a command node for indirectly associating a node with the command descriptor; and transmitting the command message across a network upon occurrence of a triggering event." Claim 8, as amended, is similarly directed to "[a]n interactive communication system comprising means for communicating command information across a network between a server and a client, wherein the means for communicating command information comprises: means for generating a command message including a command, a command descriptor, and one of a server route for directly associating a node with the command descriptor and a command node for indirectly associating a node with the command descriptor; and means for transmitting the command message across a network upon occurrence of a triggering event." No such techniques or systems is suggested by Woods in combination with Coven. The Examiner asserts that Woods teaches substantially all of the limitations of Claims 1 and 8, with the exception of "a server route ('directly') associating a node with a command descriptor and a command node ('indirectly') associating a node with a command descriptor", Detailed Action, Pages 1-2, while Coven "discloses a server route ('directly') associating a node with a command descriptor and a command node ('indirectly') associating a node with command descriptor." Id. at 2. This assertion is erroneous.

As an initial matter, Applicants disagree with the Examiner's assertion that Woods "teaches features of invention substantially as claimed" in Claims 1 and 8. Detailed Action, Page 1. As previously noted by Applicants, "an important distinction between the VMRL specification [adopted in Woods] and MPEG-4 [adopted by Applicants] is that in the latter, scene descriptions can be updated dynamically using time-stamped commands. In contrast, VRML operates on static 'worlds.' After a world is loaded, there is no mechanism to modify it." See, e.g., Appl'n, Page 6, Lines 30-33. Woods merely discloses a VRML scene that is constrained to run as a single process on a single machine. Accordingly, contrary to the Examiner's assertion, Woods fails to disclose or suggest the client server model described by the Applicants. Furthermore, Woods actually teaches away from the client server model by aiming "to provide an efficient implementation of *node-to-node* communication as required for animation of VRML

2.0 scenes." Woods, § 7 (emphasis added). See also Response to the Office Action, Mailed September 5, 2002, Pages 3-4.

Even accepting, merely for the sake of argument, the Examiner's assertion that Woods teaches substantially all of the limitation of Claims 1 and 8, the combination of Woods with Coven fails to render these claims obvious under 35 U.S.C. § 103(a). Contrary to the assertion of the Examiner, Coven does not disclose the implementation of the client server architecture described in the Application. In fact, Coven actually acknowledges that the technology required to implement such a client server architecture was not available as of the date of publication.

Coven is an overview of VRML that was written as part of an ongoing European Union research project. As part of this survey, Coven mentions two possible approaches for providing multi-user support in a VRML environment, namely, Living Worlds and Open Community. Coven § 4.2. In the first instance, neither of these VRML-based approaches address the MPEG-4 client-server architecture disclosed by the Applicants. Second, even if the substantial differences between Coven's VRML-based environment and the Applicants' client server architecture are set aside, Coven provides no information as to how the two proposed approaches would allow client events to be sent to a server or another peer user. For example, Coven describes the Living Worlds architecture as requiring that "[a]nything that can't be done inside the current standard [VRML-based] is declared by definition to be 'MUTech specific.'" Coven, Page 16. Coven then proposes that this arrangement would allow suppliers of MUTech—a 'black box' that offers multi-user synchronization—"to experiment with alternative implementation designs, and to access both network and data and arbitrary external applications, without having to introduce any non-standard extensions to VRML 2.0" Id. Similarly, for the proposed Open Community solution, the "black box" is a set of Java Application Program Interfaces ("API"s). Id. at 19. Such an Java-based system does not correspond to the Applicants' client server architecture. In any event, neither of Coven's hypothetical VRML-based solutions make up for the deficiency in Woods to render obvious the client-server based architecture described in the Application.

In fact, Coven actually acknowledges the shortcomings of the proposed VRML-based solutions by noting that "VMRL was designed so that it would be easy to distribute

worlds, but the base specification does not provide any networking support layers." Coven at 29 (emphasis added). Tellingly, Coven expands on these limitations by noting that "[t]he discussion in Section 4.2 indicates that these issues are being addressed, but since *implementation of the technologies are not yet freely available, it is difficult to describe how the [Coven] proposals satisfy the above requirements.*" Id. (emphasis added). In other words, Coven merely identifies the need for the type of invention described in Claims 1 and 8, albeit in a VRML-based environment, in which a client and server communicate interactively over a network. Accordingly, contrary to the Examiner's assertion, the combination of Woods and Coven does not suggest the client server based architecture described in Claims 1 and 8.

In view of the preceding, Applicants respectfully submit that Woods, when combined with the teachings of Coven, does not render Claims 1 and 8 obvious and request that the Examiner's rejection of these claims under 35 U.S.C. § 103(a) be withdrawn.

Because Claims 2-7 and 9-14 depend on claims 1 and 8 respectively. For the same reasons given above, Applicants respectfully request that the rejections for these claims be withdrawn also.

CONCLUSION

Applicants respectfully submit that this application is in condition for allowance, and such disposition is earnestly solicited.

Respectfully submitted,


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